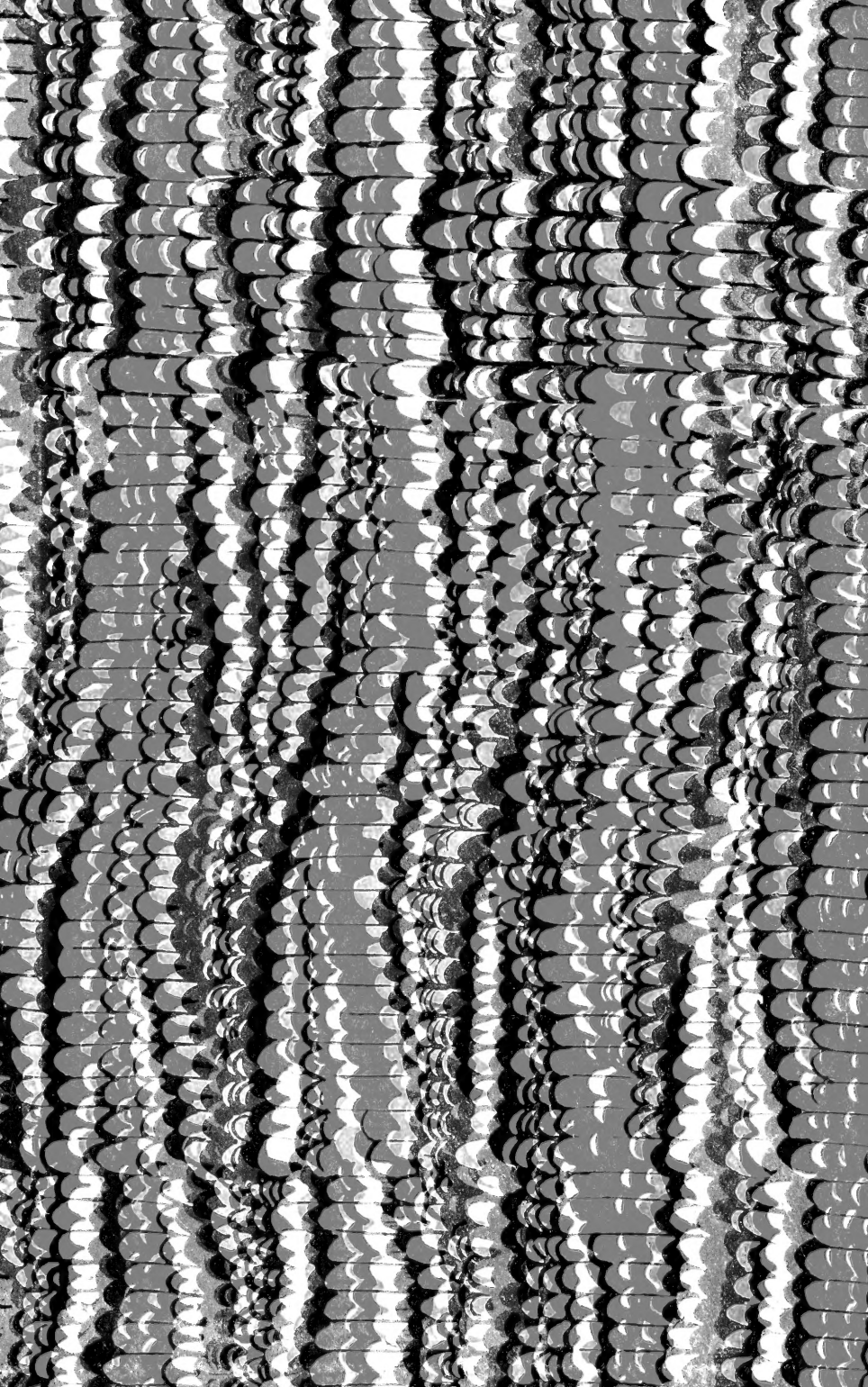
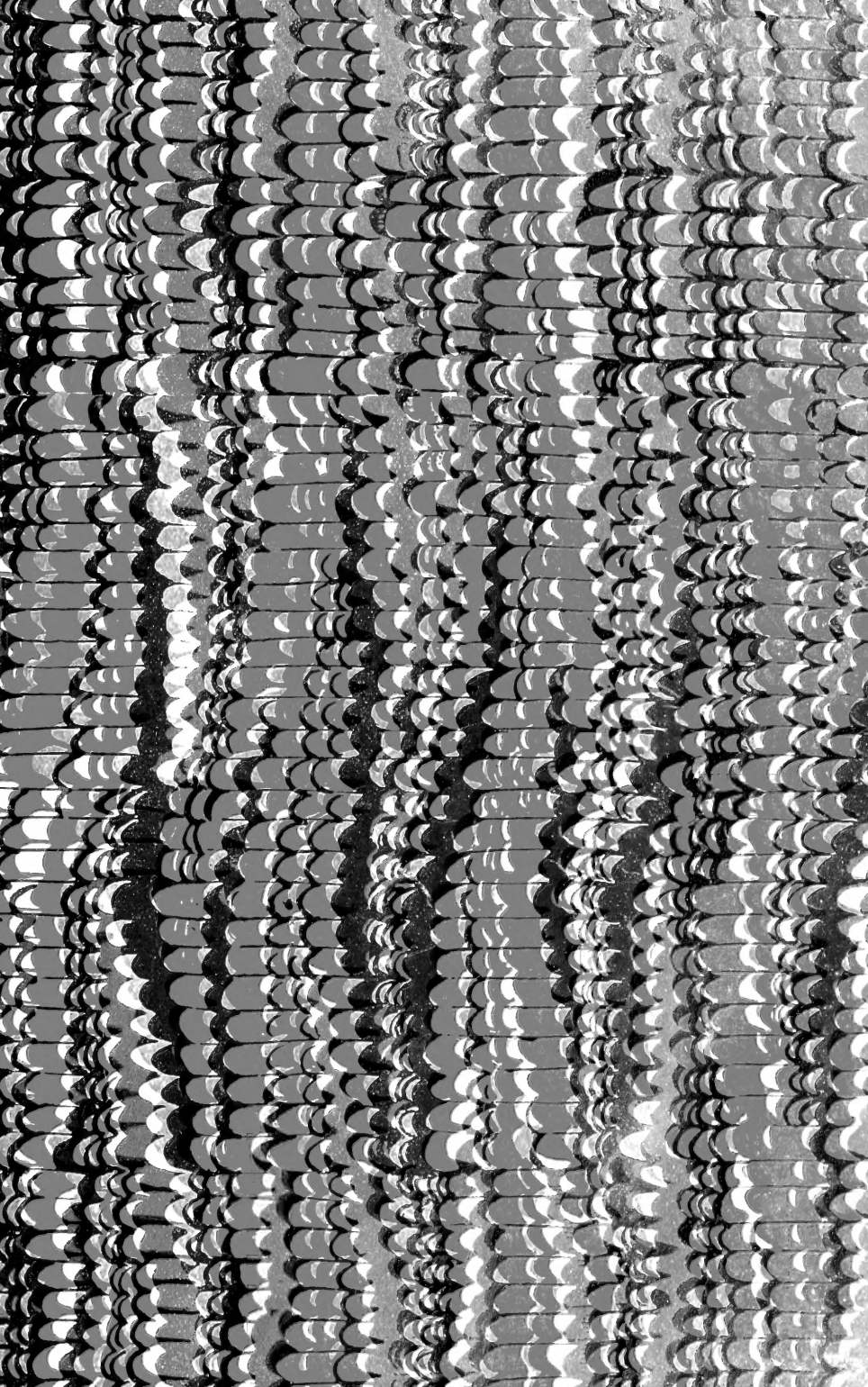


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Lockington, Wm.

Crustacea (Bird's foot)

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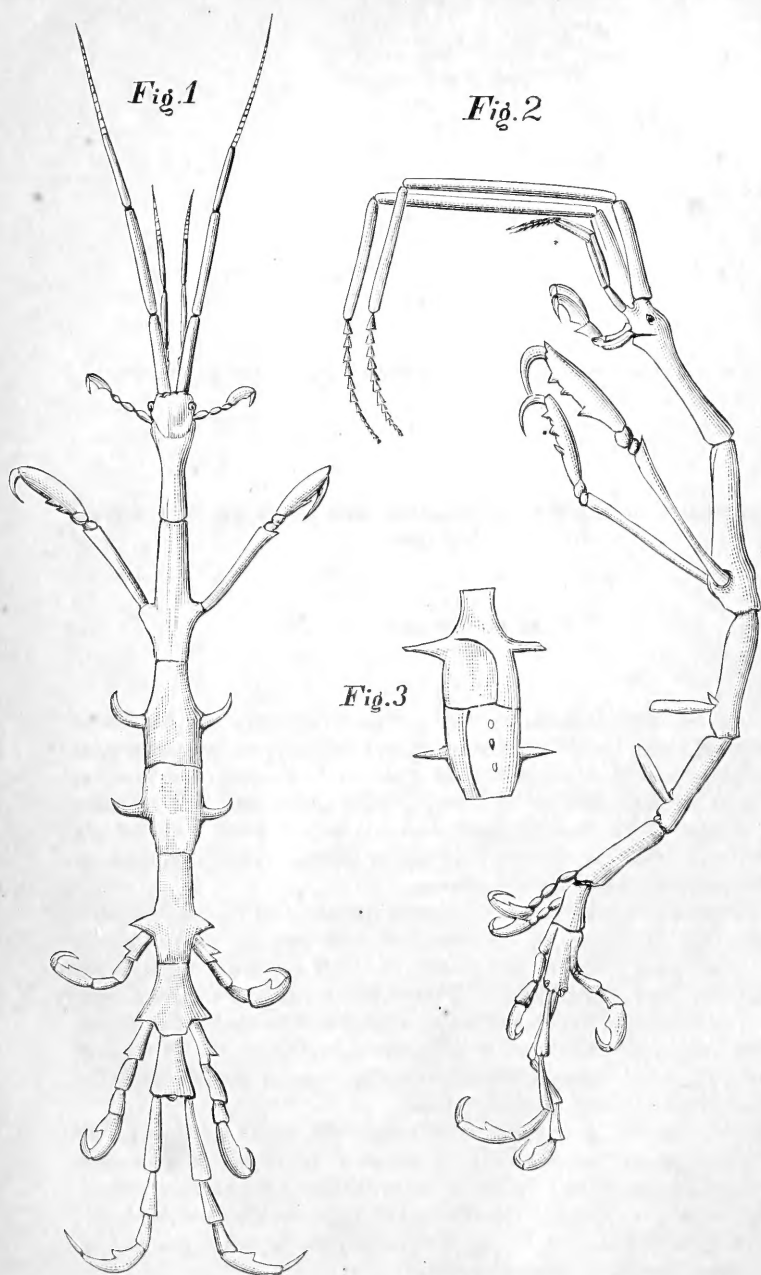


FIG. 1.—Female. FIG. 2.—Male. FIG. 3.—Ovigerous section, under third and fourth segments.

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From the Proceedings of the California Academy of Sciences, October 19th, 1874. 766.7.

Observations on the Genus *Caprella*, and Description of a New Species.

BY W. N. LOCKINGTON.

Among the *Tetradecapoda*, or fourteen-legged crustaceans, the best known forms of which are the pill-bugs, wood-lice, and sand-hoppers, there is no more remarkable genus than *Caprella*. The abdomen is obsolete, or so nearly so as only to be distinguishable by a most careful examination; and the entire body consists of the seven thoracic segments, each of which is exceedingly attenuated, so that the creature resembles, in its general appearance, a long, slender caterpillar more than a crustacean.

Although classed with the fourteen-legged crustacea, the *Caprella*, like their near relatives, the *Cyami*, or whale-lice, have really only five pairs of legs, as those pairs which normally spring from the third and fourth segments are absent, their place being filled, in the males, by two pairs of elongated branchiæ. In the females these branchiæ are modified in form and function, becoming four broad plates, which fold securely over each other on the lower side of the third and fourth segments, and thus composing a sac or pouch in which the eggs and immature young are safely carried.

The comparatively great length of the body is still further increased by the long, slender, external antennæ, and the backward direction of the hindmost legs; and the resemblance to a caterpillar is heightened by the mode of progression, which, on account of the absence of legs on the third and fourth segments, is by looping the body in a manner precisely similar to that practiced by the "loopers," or larvæ of the *Geometridæ*.

The first pair of legs is short, but the second makes up by its inordinate length and slenderness; while the three hinder pairs are more nearly equal in size, and are known as "anchoral" feet, since it is by them that the creature attaches itself firmly to the object on which it rests.

All the feet are provided with sharp claws, which fold back upon the preceding joint; but in the last three pairs this joint is furnished with a sharp spine, against which the claw shuts. Thus our *Caprella*, secured by six anchors, can ride safely in spite of waves and currents, its long body swaying to and fro, and its forelegs busy in catching its prey. The *Caprellæ* appear to be parasitic on hydroids and sponges.

The species of which I append a technical description was dredged in about eight fathoms of water, from a bottom of mud and weeds, in Hakodadi Bay, Japan, by W. J. Fisher, naturalist of the *Tuscarora*. Mr. Fisher has presented two specimens, male and female, to this Academy.

I believe the species to be new, although it is just possible that it may have been previously described by some naturalist whose works do not grace the shelves of our Academy. I have named it *C. spinosa*. The male somewhat resembles the *C. attenuata* of Dana, the chief differences being the spines upon the five posterior segments, and the absence of the spine upon the head.

The females differ so greatly from the males in the comparative lengths of the several joints of the body and antennæ, that I was at first inclined to believe they belonged to another species; but since the two forms were always dredged in company, and the specimens of one form are all males, while those of the other are all females, it is evident that they are the two sexes of the same species.

Caprella spinosa. Lockington.

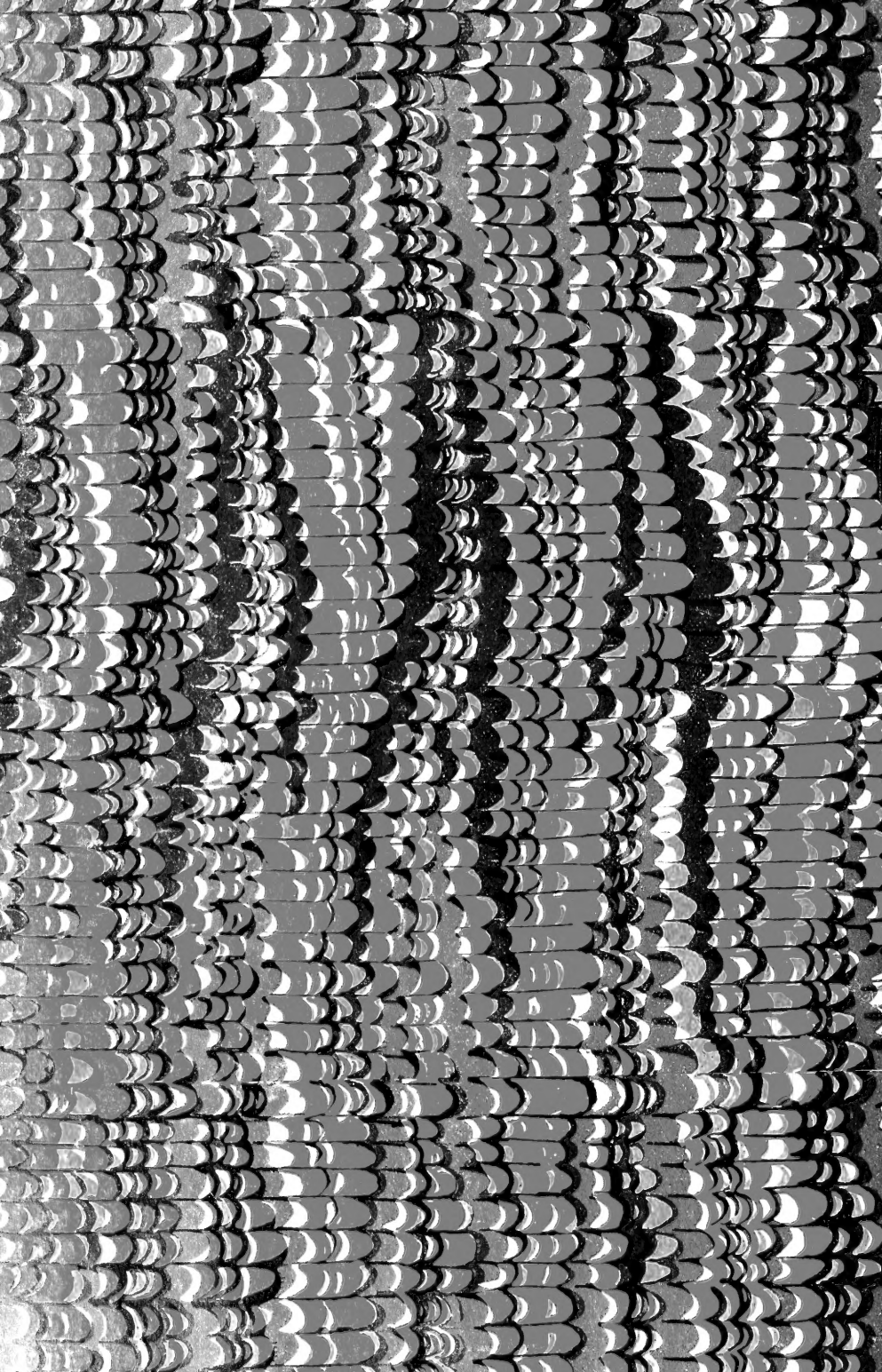
Male. Body very slender; segments elongate, second thoracic segment more than one-half longer than the first, and very slender. No spine on dorsal surface of head. Superior antennæ longer than half the body; first joint little more than half the length of second; third joint nearly as long as second; flagellum rather longer than basal joint. Inferior antennæ reaching to about the first third of the second joint of the superior antennæ. Hand of second pair of legs very narrow, with three teeth on the underside, one a short distance behind the claw, a second close to the first, and a third posterior to the middle. The third and fourth segments have a sharp spine on each side, above the branchiæ and near the hinder margin, and the three posterior segments are furnished with similar spines.

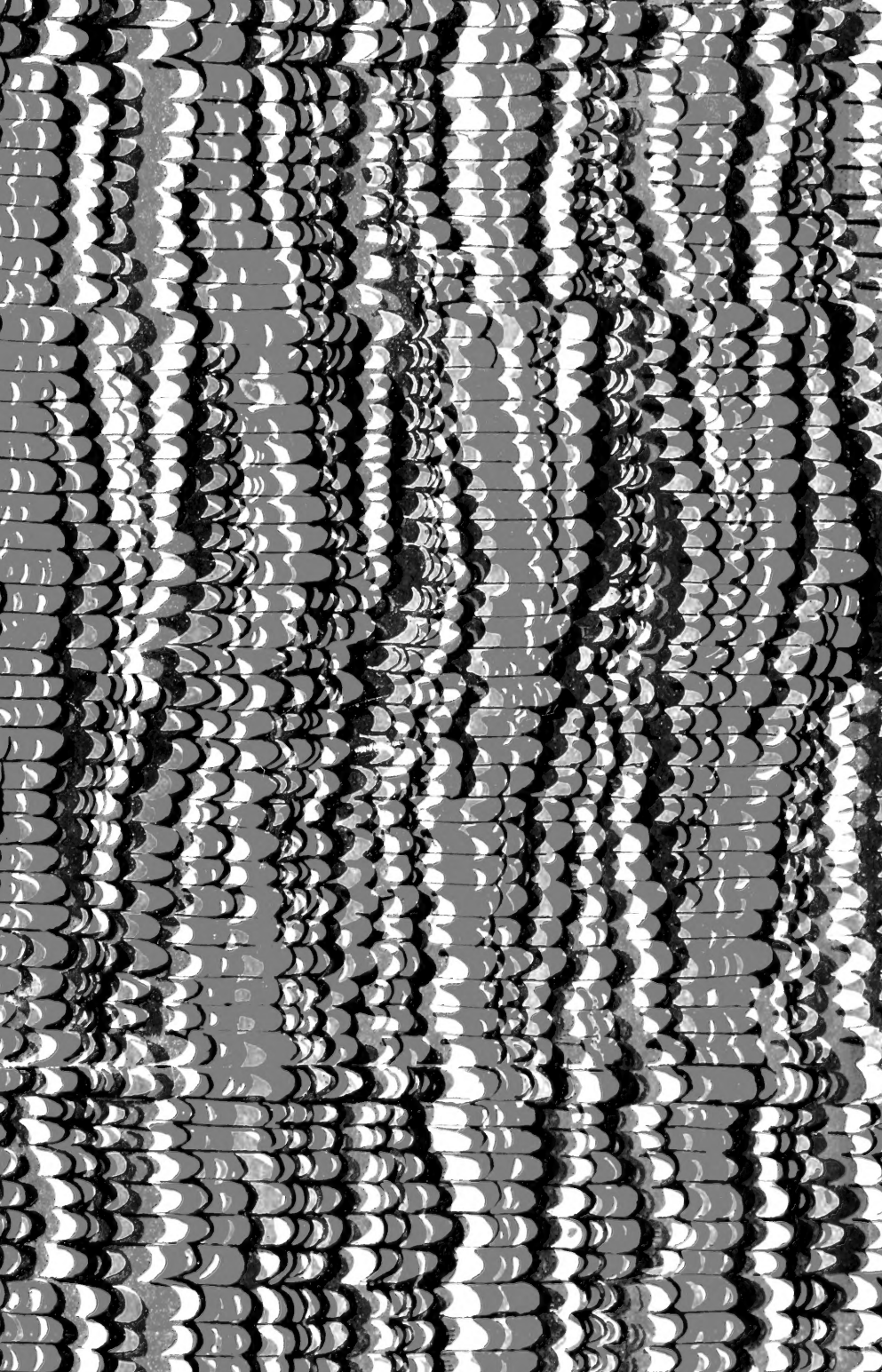
Length of body, 1 11-16 inch. Length of superior antennæ, about 1 inch.

Female. Body less elongated than in the male; third and fourth segments swollen at the sides, and both these segments armed with a long, sharp spine, the point curving towards the head; fifth and sixth segments armed with a straight spine. Second pair of legs about as long as the second segment of the body, the basal joint armed with a sharp spine on the upper side of distal end; hand shorter than basal joint, with a single acute tooth on the posterior

third of the under side. Superior antennæ about half the length of the body, the second joint about one-third longer than the basal; flagellum as long as second joint. Inferior antennæ about equal in length to the first two joints of the superior antennæ.

Length of body, about 1 7-16 inch; of superior antennæ, $\frac{3}{4}$ inch.





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